Complete Summary

GUIDELINE TITLE

Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings 2007. Standard precautions.

BIBLIOGRAPHIC SOURCE(S)

Siegel JD, Rhinehart E, Jackson M, Chiarello L, Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Standard precautions. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2007 Jun. 17 p.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention (CDC), Hospital Infection Control Practices Advisory Committee. Guidelines for isolation precautions in hospital infection control advisory committee. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1996 Jan 1. 38 p. (CDC prevention guidelines; no. 1/96). [97 references]

COMPLETE SUMMARY CONTENT

SCOPE

METHODOLOGY - including Rating Scheme and Cost Analysis RECOMMENDATIONS

EVIDENCE SUPPORTING THE RECOMMENDATIONS

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS QUALIFYING STATEMENTS

IMPLEMENTATION OF THE GUIDELINE

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Healthcare-associated infections

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Infectious Diseases Nursing Preventive Medicine

INTENDED USERS

Advanced Practice Nurses Allied Health Personnel Health Care Providers Hospitals Nurses Physician Assistants Physicians

GUIDELINE OBJECTIVE(S)

- To provide infection control recommendations for all components of the healthcare delivery system, including hospitals, long-term care facilities, ambulatory care, home care and hospice
- To reaffirm Standard Precautions as the foundation for preventing transmission during patient care in all healthcare settings
- To reaffirm the importance of implementing Transmission-Based Precautions based on the clinical presentation or syndrome and likely pathogens until the infectious etiology has been determined
- To provide epidemiologically sound and, whenever possible, evidence-based recommendations

TARGET POPULATION

Patients and healthcare personnel in all settings where healthcare is delivered

INTERVENTIONS AND PRACTICES CONSIDERED

Standard precautions for infection control, including

- 1. Hand hygiene
- 2. Personal protective equipment (PPE)
- 3. Respiratory hygiene/cough etiquette
- 4. Patient placement
- 5. Patient-care equipment and instruments/devices
- 6. Care of the environment
- 7. Textiles and laundry
- 8. Safe injection practices
- 9. Worker safety

MAJOR OUTCOMES CONSIDERED

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Med-line and Pub Med were used to search for relevant studies published in English, focusing on those published since 1996.

The quality of studies, consistency of results and correlation with results from randomized, controlled trials when available were considered during the literature review and assignment of evidence-based categories to the recommendations in this guideline.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal and/or state regulation or standard.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the strength of recommendation grading (IA-IC, II, and no recommendation) are provided at the end of the "Major Recommendations" field.

Standard Precautions

Assume that every person is potentially infected or colonized with an organism that could be transmitted in the healthcare setting and apply the following infection control practices during the delivery of health care.

IV.A. Hand Hygiene

IV.A.1. During the delivery of healthcare, avoid unnecessary touching of surfaces in close proximity to the patient to prevent both contamination of clean hands from environmental surfaces and transmission of pathogens from contaminated hands to surfaces (Bhalla et al., 2004; Duckro et al., 2005; Occupational Safety and Health Administration [OSHA], 2001; Samore et al., 1996; Bond et al., 1981; Lanotte et al., 2003). **Category IB/IC**

IV.A.2. When hands are visibly dirty, contaminated with proteinaceous material, or visibly soiled with blood or body fluids, wash hands with either a nonantimicrobial soap and water or an antimicrobial soap and water (Boyce & Pittet, 2002). **Category IA**

IV.A.3. If hands are not visibly soiled, or after removing visible material with non-antimicrobial soap and water, decontaminate hands in the clinical situations described in IV.A.3.a-f. The preferred method of hand decontamination is with an alcohol-based hand rub (Pittet et al., 2000; Widmer 2000). Alternatively, hands may be washed with an antimicrobial soap and water. Frequent use of alcohol-based hand rub immediately following handwashing with nonantimicrobial soap may increase the frequency of dermatitis (Boyce & Pittet, 2002). **Category IB**

Perform hand hygiene:

IV.A.3.a. Before having direct contact with patients (Mortimer et al., 1962). **Category IB**

IV.A.3.b. After contact with blood, body fluids or excretions, mucous membranes, nonintact skin, or wound dressings. **Category IA**

IV.A.3.c. After contact with a patient's intact skin (e.g., when taking a pulse or blood pressure or lifting a patient) (McFarland et al., 1989; Ehrenkranz & Alfonso, 1991; Mortimer et al., 1962; Casewell & Phillips, 1977). **Category IB**

IV.A.3.d. If hands will be moving from a contaminated-body site to a clean-body site during patient care.

Category II

IV.A.3.e. After contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient (Bhalla et al., 2004; Duckro et al., 2005; Boyce et al., 1997; Samore et al., 1996; Ojajarvi, 1980; Otter

et al., 2006). Category II

IV.A.3.f. After removing gloves (Tenorio et al., 2001; Olsen et al., 1993; Doebbeling et al., 1988). **Category IB**

IV.A.4. Wash hands with non-antimicrobial soap and water or with antimicrobial soap and water if contact with spores (e.g., *Clostridium difficile* or *Bacillus anthracis*) is likely to have occurred. The physical action of washing and rinsing hands under such circumstances is recommended because alcohols, chlorhexidine, iodophors, and other antiseptic agents have poor activity against spores (Boyce & Pittet, 2002; Rutala & Weber, In preparation; Weber et al., 2003). **Category II**

IV.A.5. Do not wear artificial fingernails or extenders if duties include direct contact with patients at high risk for infection and associated adverse outcomes (e.g., those in intensive care units [ICUs] or operating rooms) (Foca et al., 2000; Gupta et al., 2004; Boyce & Pittet, 2002; Passaro et al., 1997; Moolenaar et al., 2000; Parry et al., 2001). **Category IA**

IV.A.5.a. Develop an organizational policy on the wearing of non-natural nails by healthcare personnel who have direct contact with patients outside of the groups specified above (Saiman et al., 2002). **Category II**

IV.B. Personal Protective Equipment (PPE) (see Figure in the original guideline document)

IV.B.1. Observe the following principles of use:

IV.B.1.a. Wear PPE, as described in IV.B.2-4, when the nature of the anticipated patient interaction indicates that contact with blood or body fluids may occur (OSHA, 2001; "Update," 1988; CDC, 1985). **Category IB/IC**

IV.B.1.b. Prevent contamination of clothing and skin during the process of removing PPE (see Figure in the original guideline document). **Category II**

IV.B.1.c. Before leaving the patient's room or cubicle, remove and discard PPE ("Recommendations for preventing transmissions," 2001; OSHA, 2001).

Category IB/IC

IV.B.2.Gloves

IV.B.2.a. Wear gloves when it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, nonintact skin, or potentially contaminated intact skin (e.g., of a patient incontinent of stool or urine) could occur ("Recommendations for preventing transmissions," 2001; Tenorio et al., 2001; OSHA 2001; Olsen et al., 1993; "Update," 1988; Johnson et al., 1990). Category IB/IC

IV.B.2.b. Wear gloves with fit and durability appropriate to the task (Boyce & Pittet, 2002; Korniewicz et al., 2002; Korniewicz & McLeskey, 1998; OSHA, 2002; Neal et al., 1998; Broyles, O'Connell, & Korniewicz, 2002). **Category IB**

IV.B.2.b.i. Wear disposable medical examination gloves for providing direct patient care.

IV.B.2.b.ii. Wear disposable medical examination gloves or reusable utility gloves for cleaning the environment or medical equipment.

IV.B.2.c. Remove gloves after contact with a patient and/or the surrounding environment (including medical equipment) using proper technique to prevent hand contamination (see Figure in the original guideline document). Do not wear the same pair of gloves for the care of more than one patient. Do not wash gloves for

the purpose of reuse since this practice has been associated with transmission of pathogens (Boyce & Pittet, 2002; Tenorio et al., 2001; Olsen et al., 1993; Doebbeling et al., 1988; Maki et al., 1990; Patterson et al., 1991). **Category IB**

IV.B.2.d. Change gloves during patient care if the hands will move from a contaminated body-site (e.g., perineal area) to a clean body-site (e.g., face). **Category II**

IV.B.3. Gowns

IV.B.3.a. Wear a gown that is appropriate to the task to protect skin and prevent soiling or contamination of clothing during procedures and patient-care activities when contact with blood, body fluids, secretions, or excretions is anticipated (OSHA, 2001; "Update," 1988; CDC, 1985). **Category IB/IC**

IV.B.3.a.i. Wear a gown for direct patient contact if the patient has uncontained secretions or excretions (Hall, 2000; Boyce et al., 1997; Zachary et al., 2001; OSHA, 2001; Boyce et al., 1994). Category IB/IC

IV.B.3.a.ii. Remove gown and perform hand hygiene before leaving the patient's environment (Hall, 2000; Boyce et al., 1997; Zachary et al., 2001; OSHA, 2001; Boyce et al., 1994). **Category IB/IC**

IV.B.3.b. Do not reuse gowns, even for repeated contacts with the same patient. **Category II**

IV.B.3.c. Routine donning of gowns upon entrance into a high risk unit (e.g., ICU, neonatal intensive care unit [NICU], hematopoietic stem-cell transplant [HSCT] unit) is not indicated (Lee et al., 1990; Cloney & Donowitz, 1986; Pelke et al., 1994; Slaughter et al., 1996; Duquette-Petersen et al., 1999). **Category IB**

IV.B.4. Mouth, nose, eye protection

IV.B.4.a. Use PPE to protect the mucous membranes of the eyes, nose and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions and excretions. Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed (Seto et al., 2003; OSHA, 2001; "Update," 1988; CDC, 1985). **Category IB/IC**

IV.B.5. During aerosol-generating procedures (e.g., bronchoscopy, suctioning of the respiratory tract [if not using in-line suction catheters], endotracheal intubation) in patients who are not suspected of being infected with an agent for which respiratory protection is otherwise recommended (e.g., *Mycobacterium tuberculosis*, severe acute respiratory syndrome [SARS], or hemorrhagic fever viruses),

wear one of the following: a face shield that fully covers the front and sides of the face, a mask with attached shield, or a mask and goggles (in addition to gloves and gown) (Gehanno et al., 1999; Scales et al., 2003; Seto et al., 2003; "Guidelines for preventing," 1994; Loeb et al., 2004; Fowler et al., 2004). (See also www.cdc.gov/ncidod/sars.)

Category IB

IV.C. Respiratory Hygiene/Cough Etiquette

IV.C.1. Educate healthcare personnel on the importance of source control measures to contain respiratory secretions to prevent droplet and fomite transmission of respiratory pathogens, especially during seasonal outbreaks of viral respiratory tract infections (e.g., influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus) in communities (Tablan et al., 2004; Hall, 2000; Macartney et al., 2000). (See also www.cdc.gov/flu/avian/professional/infect-control.htm and www.cdc.gov/ncidod/sars.) **Category IB**

IV.C.2. Implement the following measures to contain respiratory secretions in patients and accompanying individuals who have signs and symptoms of a respiratory infection, beginning at the point of initial encounter in a healthcare setting (e.g., triage, reception and waiting areas in emergency departments, outpatient clinics, and physician offices) (Saiman & Siegel, 2003; Hall, 2000; Riley, 1974; Roberts et al., 2000; Goldmann, 2001).

IV.C.2.a. Post signs at entrances and in strategic places (e.g., elevators, cafeterias) within ambulatory and inpatient settings with instructions to patients and other persons with symptoms of a respiratory infection to cover their mouths/noses when coughing or sneezing, use and dispose of tissues, and perform hand hygiene after hands have been in contact with respiratory secretions. **Category II**

IV.C.2.b. Provide tissues and no-touch receptacles (e.g., foot-pedal-operated lid or open, plastic-lined waste basket) for disposal of tissues (Saiman & Siegel, 2003).

Category II

IV.C.2.c. Provide resources and instructions for performing hand hygiene in or near waiting areas in ambulatory and inpatient settings; provide conveniently-located dispensers of alcohol-based hand rubs and, where sinks are available, supplies for handwashing (Boyce & Pittet, 2002; White et al., 2003). **Category IB**

IV.C.2.d. During periods of increased prevalence of respiratory infections in the community (e.g., as indicated by increased school absenteeism, increased number of patients seeking care for a respiratory infection), offer masks to coughing patients and other symptomatic persons (e.g., persons who accompany ill patients) upon entry into the facility or medical office ("Guidelines for preventing the transmission," 1994;

Thomas, 1961; Capps, 1918) and encourage them to maintain special separation, ideally a distance of at least 3 feet, from others in common waiting areas (Bridges, Kuehnert, & Hall, 2003; Feigin et al., 1982; Musher, 2003; Hamburger & Robertson, 1948; Saiman & Siegel, 2003). (See also www.cdc.gov/ncidod/sars.) Category IB

IV.C.2.d.i. Some facilities may find it logistically easier to institute this recommendation year-round as a standard of practice. **Category II**

IV.D Patient Placement

IV.D.1. Include the potential for transmission of infectious agents in patient-placement decisions. Place patients who pose a risk for transmission to others (e.g., uncontained secretions, excretions or wound drainage; infants with suspected viral respiratory or gastrointestinal infections) in a single-patient room when available (Hall, 2000; Trick et al., 2001; Nicolle, 2000; Chang & Nelson, 2000; Byers et al., 2001; Ford-Jones et al., 1990; Gaggero et al., 1992; Drinka et al., 2003). (See also www.aia.org/aah_gd_hospcons.)

Category IB

IV.D.2 Determine patient placement based on the following principles:

- Route(s) of transmission of the known or suspected infectious agent
- Risk factors for transmission in the infected patient
- Risk factors for adverse outcomes resulting from a healthcareassociated infection (HAI) in other patients in the area or room being considered for patient placement
- Availability of single-patient rooms
- Patient options for room-sharing (e.g., cohorting patients with the same infection) **Category II**

IV.E. Patient-care Equipment and Instruments/Devices (Rutala & Weber, In preparation)

- IV.E.1. Establish policies and procedures for containing, transporting, and handling patient-care equipment and instruments/devices that may be contaminated with blood or body fluids ("Recommendations for preventing transmission," 2001; "Occupational exposure," 2001; Bond et al., 1981). **Category IB/IC**
- IV.E.2. Remove organic material from critical and semi-critical instrument/devices, using recommended cleaning agents before high level disinfection and sterilization to enable effective disinfection and sterilization processes (Rutala & Weber, 2004; Merritt, Hitchins, & Brown, 2000; Kampf, Bloss, & Martiny, 2004). Category IA
- IV.E.3. Wear PPE (e.g., gloves, gown), according to the level of anticipated contamination, when handling patient-care equipment and

instruments/devices that is visibly soiled or may have been in contact with blood or body fluids ("Recommendations for preventing transmission," 2001; "Occupational exposure," 2001; Bond et al., 1981). Category IB/IC

IV.F. Care of the Environment (Sehulster & Chinn, 2003)

- IV.F.1. Establish policies and procedures for routine and targeted cleaning of environmental surfaces as indicated by the level of patient contact and degree of soiling (Sehulster & Chinn, 2003). **Category II**
- IV.F.2. Clean and disinfect surfaces that are likely to be contaminated with pathogens, including those that are in close proximity to the patient (e.g., bed rails, over bed tables) and frequently-touched surfaces in the patient care environment (e.g., door knobs, surfaces in and surrounding toilets in patients' rooms) on a more frequent schedule compared to that for other surfaces (e.g., horizontal surfaces in waiting rooms) (Sehulster & Chinn, 2003; Duckro et al., 2005; "Recommendations for preventing the spread," 1995; Gerding et al., 1995; Weber & Rutala, 1997; Byers et al., 1998; Bhalla et al., 2004; Samore et al., 1996; Hota, 2004; Martinez et al., 2003). **Category IB**
- IV.F.3. Use Environmental Protection Agency (EPA)-registered disinfectants that have microbiocidal (i.e., killing) activity against the pathogens most likely to contaminate the patient-care environment. Use in accordance with manufacturer's instructions (Ansari, Springthorpe, & Sattar, 1991; Kaatz et al., 1988; Mayfield et al., 2000; Rutala & Weber, In preparation; U.S. EPA, 1996). Category IB/IC
 - IV.F.3.a. Review the efficacy of in-use disinfectants when evidence of continuing transmission of an infectious agent (e.g., rotavirus, *C. difficile*, norovirus) may indicate resistance to the in-use product and change to a more effective disinfectant as indicated (Wu et al., 2005 Ansari, Springthorpe, & Sattar, 1991; Wilcox et al., 2003). **Category II**
- IV.F.4. In facilities that provide health care to pediatric patients or have waiting areas with child play toys (e.g., obstetric/gynecology offices and clinics), establish policies and procedures for cleaning and disinfecting toys at regular intervals (Avila-Aguero et al., 2004; Buttery et al., 1998). **Category IB**

Use the following principles in developing this policy and procedures: **Category II**

- Select play toys that can be easily cleaned and disinfected.
- Do not permit use of stuffed furry toys if they will be shared.
- Clean and disinfect large stationary toys (e.g., climbing equipment) at least weekly and whenever visibly soiled.
- If toys are likely to be mouthed, rinse with water after disinfection; alternatively wash in a dishwasher.

 When a toy requires cleaning and disinfection, do so immediately or store in a designated labeled container separate from toys that are clean and ready for use.

IV.F.5. Include multi-use electronic equipment in policies and procedures for preventing contamination and for cleaning and disinfection, especially those items that are used by patients, those used during delivery of patient care, and mobile devices that are moved in and out of patient rooms frequently (e.g., daily) (Neely et al., 2005; Neely, Maley, & Warden, 1999; Bures et al., 2000; Devine, Cooke & Wright, 2001). **Category IB**

IV.F.5.a. No recommendation for use of removable protective covers or washable keyboards. **Unresolved issue**

IV.G Textiles and Laundry

IV.G.1. Handle used textiles and fabrics with minimum agitation to avoid contamination of air, surfaces and persons ("Occupational exposure," 2001; Sattar et al., 2001; Shiomori et al., 2002).

Category IB/IC

IV.G.2 If laundry chutes are used, ensure that they are properly designed, maintained, and used in a manner to minimize dispersion of aerosols from contaminated laundry (Sehulster & Chinn, 2003; American Institute of Architects, 2006; Whyte, Baird, & Annand, 1969; Michaelsen, 1965). **Category IB/IC**

IV.H. Safe Injection Practices

The following recommendations apply to the use of needles, cannulas that replace needles, and, where applicable, intravenous delivery systems (Williams, Perz, & Bell, 2004)

IV.H.1. Use aseptic technique to avoid contamination of sterile injection equipment (Plott, Wagner, & Tyring, 1990; Samandari et al., 2005). **Category IA**

IV.H.2. Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed. Needles, cannulae, and syringes are sterile, single-use items; they should not be reused for another patient nor to access a medication or solution that might be used for a subsequent patient (CDC, 2003; O'Grady et al., 2002; Comstock et al., 2004; Germain et al., 2005).

Category IA

IV.H.3. Use fluid infusion and administration sets (i.e., intravenous bags, tubing, and connectors) for one patient only and dispose appropriately after use. Consider a syringe or needle/cannula contaminated once it has been used to enter or connect to a patient's intravenous infusion bag or administration set (CDC, 2003). **Category IB**

IV.H.4. Use single-dose vials for parenteral medications whenever possible (CDC, 2003). **Category IA**

IV.H.5. Do not administer medications from single-dose vials or ampules to multiple patients or combine leftover contents for later use (Grohskopf et al., 2002; CDC, 2003; Germain et al., 2005). **Category IA**

IV.H.6. If multidose vials must be used, both the needle or cannula and syringe used to access the multidose vial must be sterile (CDC, 2003; Plott, Wagner, & Tyring, 1990). **Category IA**

IV.H.7. Do not keep multidose vials in the immediate patient treatment area and store in accordance with the manufacturer's recommendations; discard if sterility is compromised or questionable (CDC, 2003; Samandari et al., 2005). **Category IA**

IV.H.8. Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients (CDC, 2003; Macedo de Oliveira et al., 2005). **Category IB**

IV.I. Infection Control Practices for Special Lumbar Puncture Procedures Wear a surgical mask when placing a catheter or injecting material into the spinal canal or subdural space (i.e., during myelograms, lumbar puncture and spinal or epidural anesthesia (Watanakunakorn & Stahl, 1992; Gelfand & Abolnik, 1995; Schlesinger, Salit, & McCormack, 1982; Yaniv & Potasman, 2000; Schlegel et al., 1999; Schneeberger, Janssen, & Voss; 1996; Veringa, van Belkum, & Schellekens, 1995; Couzigou et al., 2003; Torres et al., 1993; Philips et al., 1992; Hsu et al., 2007). **Category IB**

IV.J. Worker Safety

Adhere to federal and state requirements for protection of healthcare personnel from exposure to bloodborne pathogens ("Occupational exposure," 2001). **Category IC**

Definitions:

Strength of the Recommendations

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal and/or state regulation or standard.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of standard precautions to prevent the transmission of infectious agents in healthcare settings

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Much of the evidence cited for preventing transmission of infectious agents in healthcare settings is derived from studies that used "quasi-experimental designs", also referred to as nonrandomized, pre- post-intervention study designs. Although these types of studies can provide valuable information regarding the effectiveness of various interventions, several factors decrease the certainty of attributing improved outcome to a specific intervention. These include difficulties in controlling for important confounding variables; the use of multiple interventions during an outbreak; and results that are explained by the statistical principle of regression to the mean, (e.g., improvement over time without any intervention). Observational studies remain relevant and have been used to evaluate infection control interventions.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Siegel JD, Rhinehart E, Jackson M, Chiarello L, Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Standard precautions. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2007 Jun. 17 p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1996 Jan (revised 2007 Jun)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Healthcare Infection Control Practices Advisory Committee (HICPAC)

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention (CDC), Hospital Infection Control Practices Advisory Committee. Guidelines for isolation precautions in hospital infection control advisory committee. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1996 Jan 1. 38 p. (CDC prevention guidelines; no. 1/96). [97 references]

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from <u>Centers for Disease Control and Prevention (CDC) Web site</u>.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on April 25, 1999. The information was verified by the guideline developer on November 15, 1999. This NGC summary was updated by ECRI Institute on September 5, 2007.

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